REMARKS ON THE ISLES OF SCILLY AS A HEALTH-RESORT.

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To be well acquainted with the peculiarities of the places within easy reach, which are marked by distinctive qualities of climate likely to be of service to the invalid, is knowledge of great value in our daily work; and it is because I am satisfied that the Isles of Scilly are noteworthy in this respect and are but little known, that I avail myself of this general muster of our forces to introduce them to your better acquaintance.

These islands, some thirty in number, lie in the Atlantic, about twenty-five miles W.S.W. of the Land's End. Five only of them are now inhabited, and their total population, by the census of 1871, was 2,075, of which St. Mary's, the largest, contained 1,368. The acreage of these five is 3,320; and the whole group is scattered through an area about twelve miles by nine miles in extent.

The climate is unique in several ways; it is the least cold in winter, the least hot in summer, and the most equable of any in Great Britain. This meteorological inquiry has been minutely gone into for forty years past by myself and by others, and of late I have been specially engaged in an attempt to estimate the reciprocal influence of sea and land on the seasons; but this is not the place, even if brevity were not of paramount obligation, for stating in any detail the results of observation. A few figures, with the illustrative diagrams, will make the truth of the above statements abundantly clear.

With regard to the first point—the comparative mildness of winter—I may refer you to a valuable and elaborate paper by Dr. Tripe, published in the last number of the *Journal of the Meteorological Society*, in which he has given the results of the observations made of late years in the five months, November to March, at Scilly, Penzance, Guernsey, Ventnor, Torquay, Hastings, and some other seaside stations, and has compared them with London. The mean of the minima, or greatest cold of the nights was, at Scilly, 44.5; at Penzance, the next highest, 42.6; Torquay, 41.9; Ventnor, 40.3; Hastings, 37.3; and London (Camden Town), 35.9. The mean of the maxima, or greatest heat of the days, was at Scilly, 50.5; Penzance, 48.6; Torquay, the highest of all, 50.8; Ventnor, 48.3; Hastings, 45.4; and London, 46.9.

These results are trustworthy, but rather coarse, and they are subject to the fallacies generally involved in the comparison of averages. A more discriminative and accurate estimate may be arrived at by comparing simultaneous daily observations, so that the conditions may be as nearly identical as possible at the several stations. For this purpose, I prepared long ago the diagram before you, which exhibits day by day the chief elements of climate through the year 1842; and quite recently I have instituted a comparison of the results of observation in regard to temperature during all the periods of remarkable heat and cold which occurred in the west in the four years, 1871-74, at eight stations, suited to display the mutual influences of the sea and land. These results are exhibited in the diagrams before you; and I must content myself with stating only a very few of their numerical equivalents. Taking the winter first, you will see that the lower green line, representing the greatest cold of each night at Scilly, keeps, in the winter months, steadily far above the lower yellow, blue, and red lines, belonging to Truro, Exeter, and Greenwich; in fact, so far above these, as to approach on many occasions more nearly to the upper lines of these same colours, which shew the greatest heat of the days.

These facts are exhibited as conclusively in the comparison of periods of exceptional cold. Throwing all these together for the most typical stations, the mean of the minima is at Scilly, 38.83; Penzance, 34.34; Truro, 25.43; Plymouth, 29.13; Guernsey, 34.26; Greenwich, 26.25. The lowest point reached was at Scilly, 33; Penzance, 28; Truro, 18; Plymouth, 21; Guernsey, 25.5; Greenwich, 18.6.

Taking next the evidence of the comparative coolness of the island summer, the mean of all the maxima during the periods of remarkable heat in the same four years was at Scilly, 71.38; Penzance, 70.58;

Truro, 77.76; Plymouth, 74.16; Guernsey, 72.70; Greenwich, 83.52; and the absolute highest was at Scilly, 74; Penzance, 75; Truro, 85; Plymouth, 81; Guernsey, 78.5; Greenwich, 91.8. In these hot periods, the fall of temperature at night is least in the islands: the lowest point at Scilly was 57; Penzance, 53; Truro, 51; Plymouth, 54; Guernsey, 54.5; Greenwich, 46.2. A glance at the diagrams will set these facts in the clearest light: the green curve for Scilly lies far below those for the eastern localities in the hot season.

The third claim, that for superior equability, is proved by the same data, and it is shown on the diagrams by the greater proximity to each other of the green lines representing Scilly than that of any pair of another colour. I will only add that in the selected periods the mean range was in the cold weather for Scilly, 6.24; Truro, 21.23; Greenwich, 13.29; and the extreme range at Scilly, 19; Truro, 37; Greenwich, 36.6; whilst in the hot weather the mean range was for Scilly, 11.52; Truro, 21.88; Greenwich, 28.30; and the extreme range was at Scilly, 17; Penzance, 22; Truro, 34; Greenwich, 45.6.

One point I had especially in view in my more recent inquiry was to measure the effect of the passage of the air over the thirty miles of sea between Cornwall and Scilly when the wind was settled easterly, that is, blowing over the whole length of the country from Greenwich to the Land's End. You will see from the diagram that there is little difference between London and Truro; but, taking as a fair specimen the cold days in December 1871, these few miles of warm sea raise the winter temperature more than twelve degrees; the mean of the minima being 23.33 at Truro, and 35.50 at Scilly. And here comes into relief the important difference in the winter climate of the islands, medically considered, from that of any place on the mainland. The severe nip of cold to which every such place is liable never occurs at Scilly.

The cooling influence on the summer heats of this sea voyage of the east wind is equally marked. Taking August 1871 as an example, the mean of the highest daily temperature was at Truro, 83.6; at Scilly, 72.8. When, on the other hand, the wind is westerly, or blows from the sea to the land, its warmth is carried far inland, mitigating the cold in winter, and is only gradually lost in its progress towards the east of England. To give only one example of the rule, the mean of the minima of nine rather cold days in March 1874 was at Scilly, 45.44; Truro, 44.22; Greenwich, 39.14. The cooling influence of this sea wind on the summer heats is equally manifest. Thus, in July 1872, when the mean for seven hot days (the 23rd to 30th) was 68.14 at Scilly, it was 70.84 at Truro, and 82.86 at Greenwich; the absolute highest being at Scilly, 70; at Truro, 73; at Greenwich, 90.9. But this is rather beside our immediate purpose.

So much for temperature, the most potent factor in climate perhaps. A very brief notice must suffice for the subject of moisture, however important a matter it be. It might be imagined beforehand that, with an unlimited supply to draw from, the air incumbent upon the ocean would be kept close to saturation; but it is not so. In winter, that point is often more nearly approached at inland stations. Thus, the mean humidity for the five coldest months is 89 at Scilly; 87 at Guernsey; 85 at Falmouth and Ramsgate; whilst it is 90 at Salisbury, and 94 at Norwich. This is no doubt caused by the relative coldness of the land. In summer, when the inland temperature is the higher, the conditions are reversed. It results that the sensible dampness in winter is less at Scilly, and the sky is clearer than in the neighbouring parts of Cornwall; and, as regards many inland places, the difference between cold damp and warm damp is made evident, much to the advantage of the islands. The actual rainfall is very distinctly less at Scilly than at Penzance; about thirty-four inches at the former, and forty-two at the latter. In the islands, there are very many small falls, but very few heavy ones. This is clearly shown in the diagram. The chief drawback, perhaps, from this favourable report is the prevalence of high winds; the average force at Greenwich being .45, that at Truro is 1.45, and at Scilly 1.67.

Such are the results of meteorology; but perhaps those recorded by the vegetable kingdom are more conclusive still, as they are certainly more popularly telling. Immunity from all but a mere touch of frost has assured success at Scilly to the ever-increasing cultivation of potatoes and brocoli for the spring markets of London, the growers of which, on the mild shores of Mount's Bay, are often disappointed of their hope by a night or two of nipping cold; and the gardens of Tesco, with their tree-ferns, their avenues of aloe and yucca, and hedges glittering with every variety of mesembryanthemum, may be fairly styled sub-tropical.

Turning to the health of the inhabitants, whose numbers have been reduced considerably with a remarkable increase of prosperity under the benevolent despotism of their sole landlord, the kindness of Mr. Moyle, their only and able medical guardian these forty years past, has furnished me with full details of the causes of death; but I must

* Read in the Section of Public Medicine at the Annual Meeting of the British Medical Association in Bath, August 1878.

confine myself to a few particulars concerning disease of the lungs. In the ten years ending December 31st, 1847, the death-rate was 16 in 1,000. Phthisis was relatively prominent, although rather below the average in England generally, to the population. It is well worthy remark that the mortality of females from this cause was to that of males as ten to four; the proportion of women to men living in the islands being as fourteen to eleven. The houses are very clean, but the women are very sedentary, whilst the men are generally employed out-of-doors or afloat. The deaths from all other diseases of the lungs were in number only one-fourth of those from phthisis.

It will probably be admitted, from the evidence adduced, that the winter climate of Scilly is adapted to obviate inflammation and irritation of the respiratory organs; and for this end it has been frequently turned to satisfactory account, chiefly by invalids in moderate or even humble circumstances. Wealthier patients will be found for whom considerations of health will counterveil a form of banishment, *oceanico dissociabili*, from the customary attractions of watering places, or whose taste may be more gratified by a changeful nature often enjoyable by snatches in the depth of winter amid these tempered waters; but to pretend to rival the "sunny south"—the average of twenty five days in January or February registered by Dr. Marcet at Cannes—would be absurd. I would rather invite your attention to these islands as a summer resort, likely to be of great service to those who need invigoration in the hotter season, but cannot prudently or conveniently undertake to visit the Alps or the Fjords. After a sojourn at Torquay, whose merits were the other day so felicitously sketched by Dr. R. Hall, and a run through sundry charming places on the coast of Cornwall to Penzance, four hours' steaming will transport the convalescent to a new world of ocean life, bathed in air of singular purity, at once fresh and genial, amid scenes of great and novel beauty, where boating, fishing, sketching, and almost every attraction of natural history, will tempt the traveller to out-of-door enjoyment.

I may add that an almost daily service of steam-boats and the postal telegraph have united Scilly and the mainland in scarcely interrupted communication, since I touched on this subject in the Address in Medicine in 1860, and from the Chair of the Section of Medicine in 1871.

SURGICAL MEMORANDA.

FRACTURE OF EXTERNAL MALLEOLUS.

In the JOURNAL of July 27th, there appears an extract from the *St. Louis Medical and Surgical Journal* regarding fracture of the external malleolus and sprains of the ankle-joint. *A propos* of this subject, I may mention a case which occurred recently. W. M., aged 24, while wrestling, was thrown; and in falling twisted his left ankle-joint. I saw him shortly after the accident happened, and found the foot in good position, slightly swollen at the outer side and anteriorly. The case had all the characters of a sprain; but, on grasping the external malleolus between the finger and thumb, crepitus could be distinctly felt, and pain was complained of. A starched bandage was applied to fix the ankle-joint, and in a short time the patient was at work again.

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THERAPEUTIC MEMORANDA.

SODA TREATMENT OF BURNS AND SCALDS.

THE remarks in the JOURNAL of July 27th as to the efficacy of a saturated solution of carbonated soda in the treatment and relief of the acute pain of burns and scalds are quite correct, as I know from long experience, it being no less than thirty-four years since I first employed, and I believe was the discoverer of, this remedy for burns, etc. (see my letter in the *London Medical Gazette* of March 8th, 1844).

All that is necessary is to use a saturated solution of the carbonated alkali (called at that time sesquicarbonate), and to employ it as speedily as may be after the injury, keeping the lint or bandage constantly soaked with it until all pain and heat have ceased, which, in slight cases, may occur in from ten to twenty minutes or so: a matter of no small moment with young children, who are very subject to these accidents.

I have imagined that the relief from pain may be effected by the alkali neutralising the acidulous quality of the perspiration as this passes off through the inflamed skin; whether the carbonic acid contained in the salt has any sedative effect on the cutaneous nerves I do not know; but think it possible.

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Forty-sixth ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held in BATH, August 6th, 7th, 8th, and 9th, 1878.

PROCEEDINGS OF SECTIONS.

SUBJOINED are abstracts of most of the papers presented to the several Sections of the Association at the Annual Meeting. The papers themselves will, as opportunities occur, be published in full in the JOURNAL.

SECTION B.—SURGERY.

Wednesday, August 7th.

THE Chair was taken by the President of the Section, G. W. CALLENDER, Esq., F.R.S., Surgeon to St. Bartholomew's Hospital.

Subcutaneous Division of the Neck of the Thigh-bone. By WILLIAM ADAMS, F.R.C.S. (London).—Mr. Adams exhibited the man upon whom he first performed the operation of subcutaneous division of the neck of the thigh-bone, in 1869, when the patient was twenty-four years of age, at the Great Northern Hospital. This case formed the subject of a paper read before the British Medical Association in 1870. Soon after this, the patient became a shopkeeper at Bath. The case was one of bony ankylosis of the right hip-joint, with malposition of the limb, the thigh being flexed and abducted to an extreme degree, so that the heel of the right foot rested on the upper part of the left knee-joint. The limb, therefore, was perfectly useless; and the only mode of progression was either with two crutches, or one crutch and a stick, which he generally used. This affection resulted from an attack of rheumatic fever, seven years before he came under Mr. Adams's care. Ankylosis of the vertebral articulations, through a considerable portion of the spinal column, had taken place, and contributed very much to the general appearance of deformity. As a result of the operation, bony ankylosis took place, and the limb soon became strong and useful. He has since remained well, and able to walk several miles without fatigue, and to carry weights. He soon dispensed with his crutches, and now generally used a stick, but only for the purpose of balancing his body. With regard to the results of the operation: since the publication of twenty-two cases, in a tabulated form, in the last volume of the *Medico-Chirurgical Transactions*, Mr. Adams had obtained the particulars of eleven additional cases, all successful. Five of these had been performed in America. Mr. J. Ashhurst, jun., of Philadelphia, had operated upon three cases, and had also successfully performed Mr. Gant's operation three times. Dr. Lenox Hodge of Philadelphia, and Dr. Broome of Moberly, had each operated upon one case. Mr. Lund of Manchester had furnished the particulars of four additional cases; and Mr. Willett of St. Bartholomew's Hospital had operated upon two cases successfully. The American surgeons adopted the operation since Mr. Adams's visit to the International Medical Congress in Philadelphia in 1876, where he read a paper on the subject. The total number of cases operated upon amounted to thirty-three, and Mr. Adams had not heard of any unfavourable case, beyond those recorded in the earlier paper, of which one was fatal from pyæmia, and in two others deep suppuration contributed to a fatal termination after many months. As a general rule, the wounds had healed like tenotomy wounds, without any suppuration or local disturbance. In some cases, a little suppuration at the wound had occurred, but only in a few cases had deep suppuration taken place; much of the success depending upon a judicious selection of cases, and great attention to the minute details of the operation.—THE PRESIDENT commented on the results of the operation, remarking on the success which had attended its performance, not only in the hands of Mr. Adams, but in those of American surgeons and surgeons in this country, where it had often been resorted to since its first performance by Mr. Adams.

The Anatomy of Hip-joint Disease in Childhood. By EDMUND OWEN, M.B., F.R.C.S. (London).—Mr. Owen demonstrated the anatomy of hip-joint disease in childhood, which he illustrated by specimens of two adult hip-joints. A hole had been made into the joint from the pelvis. It was stated that the most common cause of disease in children was a wrench of the ligamentum teres by falls, etc. The effusion into the synovial membrane was illustrated by injecting water through the hole from the pelvis. When a small quantity was injected, the femur was abducted—the position stated to be that in the